

Trivia-Discrimination-Part-1-Math

Survey Flow

Block: Intro (1 Question)
Standard: Demographics (8 Questions)
Standard: Math (50 Questions)
Standard: Final (1 Question)

EndSurvey: Advanced

Page Break

Start of Block: Intro

Q1 Thank you for participating in this survey!

The survey has two parts. In the first part you will answer some very basic demographics questions. In the second part you will answer 50 multiple-choice math questions.

We are interested in determining how many of these math questions you can get right without any help. So please **do not** use a calculator or look up the answers online, but rather just do your best. The number of questions you answer correctly will not affect your payment in any way.

End of Block: Intro

Start of Block: Demographics

Q52 Please answer the personal profile questions below:

Q53 What is your favorite color?

Q54 What is your favorite movie?



Q55 Do you prefer coffee or tea?

Coffee (1)

Tea (2)



Q56 What is your age?



Q57 What is your gender?

Male (1)

Female (2)

Q58 What is your favorite subject in high school?

Q59 What is your favorite sport?

End of Block: Demographics

Start of Block: Math



Q2 Q1. What is the square root of 289?

15 (1)

17 (2)

19 (3)

21 (4)



Q3 Q2. $4 - 8 \cdot 9/2 = ?$

- 32 (1)
 - 18 (2)
 - 12 (3)
 - 6 (4)
-



Q4 Q3. $3^5 = ?$

- 81 (1)
 - 243 (2)
 - 405 (4)
 - 729 (3)
-



Q5 Q4. $5 \cdot 6 \cdot 7 = ?$

- 210 (1)
 - 233 (4)
 - 240 (2)
 - 180 (3)
-



Q6 Q5. What is the reduced form of the fraction $70/42$?

- $5/3$ (1)
 - $10/6$ (4)
 - $7/5$ (2)
 - $14/10$ (3)
-



Q7 Q6. What is the cubic root of 64?

- 4 (1)
 - 5 (5)
 - 6 (4)
 - 3 (2)
-



Q8 Q7. $(4+5)/5 = ?$

- 5 (1)
 - 1.8 (2)
 - 6.25 (3)
 - 1 (4)
-



Q9 Q8. $x+2 < 18/3$. Which of the following is necessarily **false**?

$x < 4$ (1)

$x > 4$ (2)

$x < 3$ (3)

$x > 3$ (4)



Q10 Q9. $x^5 * x^8 = ?$

x^{11} (1)

x^{12} (2)

x^{13} (3)

x^{14} (4)



Q11 Q10. Which of the following is approximately equal to 0.833?

$5/6$ (1)

$6/7$ (4)

$4/5$ (3)

$3/4$ (5)



Q12 Q11. $x=5$, $y=6$, $z=7$, then what is $xy/(z-4)$?

10 (1)

4 (4)

6 (2)

8 (3)



Q13

Q12. Which of the following is the closest integer to $45/7$?

5 (1)

6 (4)

7 (2)

8 (3)



Q14 Q13. Which of the following is an integer multiple of 9?

3618 (1)

3619 (4)

3617 (2)

3620 (3)



Q15 Q14. $10/5+34-4 = ?$

- 32 (1)
 - 34 (4)
 - 36 (2)
 - 30 (3)
-



Q16 Q15. $(x-1)*(x^2-4)=0$, then which of the following **cannot** be x?

- 1 (1)
 - 1 (4)
 - 2 (2)
 - 2 (3)
-



Q17 Q16. What is the square root of 196?

- 12 (1)
 - 13 (2)
 - 14 (3)
 - 15 (4)
-



Q18 Q17. $5 - 6 / (18/9) = ?$

- 2 (1)
 - 2 (4)
 - 0.5 (2)
 - 0.5 (3)
-



Q19 Q18. $(y+9)(y^2-121)=0$, then which of the following **cannot** be y ?

- 9 (1)
 - 9 (4)
 - 11 (2)
 - 11 (3)
-



Q20 Q19. Which of the following is an integer multiple of 11?

- 132 (1)
 - 133 (4)
 - 131 (2)
 - 130 (3)
-



Q21 Q20. $5+6+7+8+9+10 = ?$

- 45 (1)
 - 42 (2)
 - 48 (3)
 - 51 (4)
-



Q22 Q21. What is the binary form of 7?

- 100 (1)
 - 101 (4)
 - 110 (2)
 - 111 (3)
-



Q23 Q22. $35/7+1 = ?$

- 6 (1)
 - 7 (4)
 - 5 (2)
 - 4 (3)
-



Q24 Q23. $24/4/3 = ?$

- 2 (1)
 - 3 (2)
 - 4 (4)
 - 1 (3)
-



Q25 Q24. Which of the following is an integer multiple of 4?

- 56 (1)
 - 74 (2)
 - 66 (3)
 - 62 (4)
-



Q26 Q25. Which of the following is **not** a prime number?

- 2 (1)
 - 3 (2)
 - 4 (3)
 - 5 (4)
-



Q27 Q26. $2 \cdot 3 \cdot 4 \cdot 5 = ?$

- 24 (1)
 - 120 (2)
 - 240 (4)
 - 720 (3)
-



Q28 Q27. $6^3 = ?$

- 36 (1)
 - 216 (4)
 - 128 (2)
 - 432 (3)
-



Q29 Q28. $(4 \cdot 2 + 7 \cdot 8) / 4 = ?$

- 16 (1)
 - 20 (2)
 - 24 (3)
 - 12 (4)
-



Q30 Q29. Which of the following is a prime number?

21 (1)

23 (4)

25 (2)

27 (3)



Q31 Q30. $16 < x+8 < 26$. Which of the following could x be?

8 (1)

18 (2)

13 (3)

23 (4)



Q32 Q31. $45+3-1 = ?$

46 (1)

47 (4)

48 (2)

49 (3)



Q33 Q32. $x^6 + x^6 = ?$

- x^{12} (1)
 - $2x^6$ (4)
 - $(2x)^6$ (2)
 - x^{36} (5)
-



Q34 Q33. Which of the following fractions cannot be further reduced?

- $3/5$ (1)
 - $3/6$ (2)
 - $7/35$ (3)
 - $46/2$ (4)
-



Q35 Q34. Which of the following numbers has an integer square root?

- 32 (1)
 - 36 (2)
 - 40 (3)
 - 48 (4)
-



Q36 Q35. $5 \cdot (7+3) + 5 - 4 = ?$

- 51 (1)
 - 55 (2)
 - 39 (3)
 - 32 (4)
-



Q37 Q36. Which of the following is **not** a factor of 30?

- 2 (1)
 - 3 (2)
 - 4 (3)
 - 5 (4)
-



Q38 Q37. $x^6 / x^4 = ?$

- x^{10} (1)
 - x^2 (4)
 - x^{24} (2)
 - $x^{(2/3)}$ (3)
-



Q39 Q38. $56/8 = ?$

5 (1)

6 (4)

7 (2)

8 (3)



Q40 Q39. $2^4 - 3^3 = ?$

-11 (1)

11 (2)

-9 (3)

9 (4)



Q41 Q40. $(18+19+20)/3 = ?$

18 (1)

19 (4)

20 (2)

21 (3)



Q42 Q41. Twenty **cannot** be divided by which of the following?

2 (1)

3 (2)

4 (4)

5 (3)



Q43 Q42. $4+8+12+16 = ?$

20 (1)

40 (2)

25 (3)

45 (4)



Q44 Q43. $(x^5)^3 = ?$

x^8 (1)

x^{15} (2)

$3x^5$ (3)

$5x^3$ (4)



Q45 Q44. Which of the following is the correct factorization of 36?

- 4 * 9 (1)
 - $2^2 * 9$ (2)
 - $4 * 3^2$ (4)
 - $2^2 * 3^2$ (3)
-



Q46 Q45. $3^2 * 2 = ?$

- 18 (1)
 - 81 (4)
 - 24 (2)
 - 42 (3)
-



Q47 Q46. $-2 * (-3 - 8) = ?$

- 22 (1)
 - 22 (4)
 - 14 (2)
 - 14 (3)
-



Q48 Q47. Which of the following is an integer multiple of 5?

45 (1)

46 (2)

43 (3)

44 (4)



Q49 Q48. $x^4 = 81$. What is x ?

3 (1)

6 (2)

9 (4)

20.5 (3)



Q50 Q49. $76/4 = ?$

17 (1)

18 (4)

19 (2)

20 (3)



Q51 Q50. Which of the following is negative?

- 2^2 (1)
- $(-2)^2$ (2)
- 2^3 (3)
- $(-2)^3$ (4)

End of Block: Math

Start of Block: Final

Q60

Thank you for your participation. In addition to your base payment, we may put a small bonus into your account sometime in the next few weeks. Who receives the bonus payment is determined by a different experiment that we are doing and is unrelated to how well you did in the task. Please just think of it as an additional appreciation for your efforts.

End of Block: Final
